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K023174  
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## **Summary of Safety and Effectiveness**

In accordance with the Food and Drug Administration Rule to implement provisions of the Safe Medical Devices Act of 1990 and in conformance with 21 CFR 807, this is to serve as a Summary of Safety and Effectiveness for the proposed RIVER Medical RIVER-WIRE component device. -

**Manufacturer:**

RIVER Medical, Inc.  
836 NE 24<sup>th</sup> Avenue  
Portland, OR 97232  
PHONE: (503) 230-1280  
FAX: (503) 233-1152

**Contact Person:**

Mary Ann Greenawalt, Vice President  
Legal & Regulatory Affairs

**Device Name:**

Trade Name: Disposable Temporary Pacing Wire

Common Name: Component to diagnostic or physiological monitoring devices

Proprietary name: RIVER Wire™

Classification: Cable, Transducer and Electrode, Patient (including Connector), Cardiovascular, LDF, Class II

**Date Prepared:**

September 19, 2002

**Device Description:** The proposed device and the predicate device(s) are composed of metallic 28- to 32-gauge wire, an extruded insulation coating, a special curved needle to ease the transcutaneous placement of the electrode in the skin, and a snap-off straight needle. The leads are available in various sizes, lengths, and quantities. The predicate and proposed devices are manufactured in compliance with special controls/performance standards as dictated by 21 CFR 898; 62 FR 25497 26 USP <871> *Sutures – Needle Attachment*, <881> *Tensile Strength – Surgical sutures*, <71> *Sterility Tests*, <861> *Sutures – Diameter*. ANSI/AAMI/ISO 10993-7. IEC 60601-1-Sub-Clause 6.1; IEC 601-1, Sub-Clause 4.10; IEC 601-1, Sub-Clause 44.7; IEC 60601-1, Sub-Clause 20.4, IEC 60601-2-27, Clause 20.3 ANSI/AAMI EC 53, Cl. 5.5.1; IEC 60601-1, Sub-Clause 19.4h, ANSI/AAMI EC53, Clause 5.5.2; IEC 60601-1, Cl. 21.5, IEC 60601-2-27, Cl. 21.5, UL 2601; 55; ANSI/AAMI EC53, Clause 5.5.10; IEC 60601-1, Sub-Clause 57.4a, ANSI/AAMI EC 53, Clause 5.5.6.

**Intended Use:** The RIVER Medical Temporary Cardiac Pacing Wire is a nonabsorbable surgical cardiac pacer lead with dual needle intended to be used for temporary atrial and ventricular pacing and sensing for a contemplated implant duration of 7 days or less. The device is supplied sterile and is SINGLE USE ONLY. The device is supplied nonsterile on OEM basis only.

**Indications:** The RIVER Medical Disposable Temporary Cardiac Pacing Wire is indicated for use in temporary atrial and ventricular pacing and sensing during and after cardiac surgery.

**Comparison of Technological Characteristics:** The proposed device, the disposable temporary pacing wire, comprises the same or similar material as the predicate device. Manufacture of this device, and QC testing, is in substantial compliance with current 21 CFR 898; 62 FR 2549726 USP <871> *Sutures – Needle Attachment*, <881> *Tensile Strength – Surgical sutures*, <71> *Sterility Tests*, <861> *Sutures – Diameter*. ANSI/AAMI/ISO 10993-7. IEC 60601-1-Sub-Clause 6.1; IEC 601-1, Sub-Clause 4.10; IEC 601-1, Sub-Clause 44.7; IEC 60601-1, Sub-Clause 20.4, IEC 60601-2-27, Clause 20.3 ANSI/AAMI EC 53, Cl. 5.5.1; IEC 60601-1, Sub-Clause 19.4h, ANSI/AAMI EC53, Clause 5.5.2; IEC 60601-1, Cl. 21.5, IEC 60601-2-27, Cl. 21.5, UL 2601; 55; ANSI/AAMI EC53, Clause 5.5.10; IEC 60601-1, Sub-Clause 57.4a, ANSI/AAMI EC 53, Clause 5.5.6.

end



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

**JUN 11 2003**

RIVER Medical, Inc.  
c/o Ms. Mary Ann Greenawalt  
Vice President Legal & Regulatory Affairs  
836 NE 24<sup>th</sup> Avenue  
Portland, OR 97232

Re: K023174

Trade Name: Disposable Temporary Pacing Wire  
Regulation Number: 21 CFR 870.3680  
Regulation Name: Cardiovascular permanent or temporary pacemaker electrode.  
Regulatory Class: Class II (two)  
Product Code: LDF  
Dated: April 28, 2003  
Received: May 5, 2003

Dear Ms. Greenawalt:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to such additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act

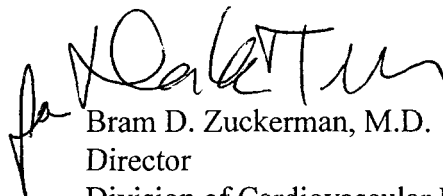
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or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

This letter will allow you to begin marketing your device as described in your Section 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at (301) 594-4646. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>

Sincerely yours,

A handwritten signature in black ink, appearing to read "Bram D. Zuckerman", is written over the typed name.

Bram D. Zuckerman, M.D.

Director

Division of Cardiovascular Devices

Office of Device Evaluation

Center for Devices and

Radiological Health

Enclosure

INDICATIONS FOR USE

510(k) (if known): K023174

DEVICE Name: Disposable Temporary Pacing Wire

Indications for Use:

The RIVER Medical Disposable Temporary Cardiac Pacing Wire is indicated for use in temporary atrial and ventricular pacing and sensing during and after cardiac surgery.

(PLEASE DO NOT WRITE BELOW THIS LINE - CONTINUE ON ANOTHER PAGE IF NEEDED)


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Concurrence of CDRH, Office of Device Evaluation (ODE)

Prescription Use X

OR

Over-the-Counter Use \_\_\_\_\_

  
(Division Sign-Off)  
Division of Cardiovascular Devices

510(k) Number K023174